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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/038,414 | 01/03/2002 | Boris Bronfin | MM4501 | 7049 |
| 1109 | 7590 | 06/03/2004 | | EXAMINER |
| ANDERSON, KILL & OLICK, P.C. 1251 AVENUE OF THE AMERICAS NEW YORK,, NY 10020-1182 | | | | IP, SIKYIN |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1742 | |

DATE MAILED: 06/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

CF

| | | |
|------------------------------|-----------------------|------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/038,414 | BRONFIN ET AL. |
| | Examiner Sikyin Ip | Art Unit 1742 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 18 March 2004.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1,2,21-26 and 29-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1,2,21-26 and 29-43 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1,2, 21-26, 29-43 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 1 the newly added limitation “minor amounts of other elements ... not exceeding 0.03 wt%” is not supported by the specification as originally filed.

In claims 42-43 the recited “yield strength higher than 140 MPa at 200°C” is not supported by the specification as originally filed. First the 140 MPa lower limit is not literally supported by instant specification. Second, the expression “higher than” includes tensile strength not disclosed by instant specification.

Applicants are required to point out support for said limitations in original specification or cancel said limitations.

Claim Rejections - 35 USC § 103

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-2, 21-26, 29-31, 34-37, 40, and 42-43 are rejected under 35 U.S.C. § 103 as being unpatentable over U.S. patent publication to Nakamura.

Claims 1-2, 21-26, 29, 30, 34-36, 40, and 42-43 are rejected under 35 U.S.C. § 103 as being unpatentable over JP 02047238.

Nakamura in page 1, [0002], [0017] and page 3, [0037] discloses the a Mg based composition which overlaps the claimed composition. Nakamura in Figures 6, 8, 11, and 12 disclose tensile strength which indicate the yield strength would be higher than the claimed minimum yield strength. JP 02047238 in abstract discloses a Mg based alloy composition overlaps the claimed Mg based alloy composition range. When prior art compounds essentially "bracketing" the claimed compounds in structural similarity are all known, one of ordinary skill in the art would clearly be motivated to make those

claimed compounds in searching for new products in the expectation that compounds similar in structure will have similar properties. *In re Gyurik*, 596 F.2d 1012, 1018, 201 USPQ 552, 557 (CCPA 1979); See *In re May*, 574 F.2d 1082, 1094, 197 USPQ 601, 611 (CCPA 1978) and *In re Hoch*, 57 CCPA 1292, 1296, 428 F.2d 1341, 1344, 166 USPQ 406, 409 (1970). Therefore, the subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the subject matter disclosed by the reference. Furthermore, overlapping ranges have been held to be a *prima facie* case of obviousness. See *In re Malagari*, 499 F.2d 1297, 1303, 182 USPQ 549, 553 (CCPA 1974).

Claims 31-33, 37-39, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over references as applied to claims above, and further in view of USP 6139651 to Bronfin (PTO-1449).

The claimed subject matter as is disclosed and rejected above by the cited reference(s) except for intermetallic compound and creep rates. However, Bronfin in col. 5, lines 27-47 discloses the addition of Ca and Sr as in the cited references would form the claimed intermetallic compounds. In the Tables 4 and 8, Bronfin discloses creep rate and tensile properties under similar conditions as claimed are overlapped the claimed properties. Therefore, the burden is on the applicant to prove that the product of the prior art does not necessarily or inherently possess characteristics attributed to the claimed product. *In re Spade*, 911 F.2d 705, 708, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990) and *In re Best*, 195 USPQ, 430 and MPEP § 2112.01.

"Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established, *In re Best*, 195 USPQ 430, 433 (CCPA 1977). When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not." *In re Spada*, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, the prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. *In re Best*, 195 USPQ 430, 433 (CCPA 1977)."

Response to Arguments

Applicant's arguments filed March 18, 2004 have been fully considered but they are not persuasive.

Applicants argue that the instant amended claim 1 recites "minor amounts of other elements ... not exceeding 0.03 wt.%" but fail to point out support for said limitation.

Applicants' argument as set forth in paragraph bridging pages 1-2 of instant remarks is noted. But, the it is found inconsistent with recited transitional expression "consisting essentially of."

Applicants' argument with respect to the claimed Ca, Sn, and Zn content is noted. But, mere argument or conclusory statements in the specification is not sufficient. *In re Geisler* (CA FC) 43 USPQ2d 1362 (7/7/1997). Unexpected results have not been

shown because which fail to compare the claimed subject matter with the closest prior art. In re Burckel, 201 USPQ 67, In re Baxter Travenol Labs., 952 F.2d 388, 392, 21 USPQ2d 1281, 1285 (Fed. Cir. 1991), and In re De Blauwe, 736 F.2d 699, 705, 222 USPQ 191, 196 (Fed. Cir. 1984). Comparison must be done under identical condition except for the novel features of the invention. In re Brown, 173 USPQ 685 and In re Chapman, 148 USPQ 711. The showing of unexpected results must be occurred over the entire claimed range. In re Clemens, 622 F.2d 1029, 206 USPQ 289, 296 (CCPA 1980). The scope of the showing must be commensurate with the scope of the claims. In re Tiffin, 448 F.2d 791, 792 (Fed. Cir. 1971), In re Coleman, 205 USPQ 1172, In re Grasselli, 713 F.2d 731, 743, 218 USPQ 769, 778 (Fed. Cir. 1983), and In re Greenfield, 197 USPQ 227.

Applicants argue that the Ca element is merely an optional element in Nakamura's alloy. But, Ca has been taught.

Applicants' argument with respect to TYS of Nakamura is noted. Arguendo the tensile strengths in Figures 6 and 8 are UTS, but it is known that TYS is about 80% of UTS which is still higher than the claimed minimum TYS.

Applicants argue that the high contents of Al, Zn, and Sn in Nakamura's alloy would reduce high temperature tensile strength. But, applicants fail to show their claimed ranges are critical and fail to substantiate their position with factual evidence by declaration. Mere argument or conclusory statements in the specification is not sufficient. In re Geisler (CA FC) 43 USPQ2d 1362 (7/7/1997).

Applicants' argument with respect to JP '238 is noted. But, the listing of numerous solutions to a problem does not make any one solution less obvious. Ex parte Raychem Corp. 17 USPQ 2d 1417, 1424 (BPAI 1990) and Merck & Co. v. Biocraft Lab. Inc. 10 USPQ 2d 1843 (CAFC 1983). In Ex Parte A, 17 USPQ2d 1716 (Bd. Pat. App.& Inter. 1990), the BPAI held that when a "species is clearly named, the species claim is anticipated no matter how many other species are additionally named." The Board said that "the tenth edition of the Merck Index lists ten thousand compounds. In our view, each and every one of those compounds is described' as that term is used in 35 U.S.C. § 102 (a), in that publication".

Applicants argue that it appears the alloy of JP '238 is not cast by die-casting. First the instant specification fails to disclose die-casting is critical for the claimed invention. Second as is evinced by Nakamura [0002] or Bronfin [col. 1, lines 1-5] that die-casting and sand casting Mg alloys are conventionally done.

Applicants' argument as set forth with respect to compounds in Bronfin' Tables 2 and 6 is noted. But, applicants' attention is directed to instant new claims 41, which recites Al₂(Ca,Sn) and Al₂(Ca,Sn,Sr).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Applicant is reminded that when amendment and/or revision is required, applicant should therefore specifically point out the support for any amendments made to the disclosure. See 37 C.F.R. § 1.121.

Examiner Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Ip whose telephone number is (571) 272-1241. The examiner can normally be reached on Monday to Friday from 5:30 A.M. to 2:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Roy V. King, can be reached on (571)-272-1244.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


SIKYIN IP
PRIMARY EXAMINER
ART UNIT 1742

S. Ip
May 30, 2004